

## **REMARKS**

The Office Action dated November 3, 2005 has been received and carefully noted. The above amendments to the claims and the following remarks are submitted as a full and complete response to the Office Action.

The Office Action rejected claims 1-4, 6, 7 and 11 under 35 U.S.C. 103 (a) as being anticipated by US Patent No 6,570,855 to Kung et al. (Kung), in view of US Patent No. 6,310,874 to Miller et al. (Miller). The Office Action took the position that Kung disclosed all of the features of these claims except for the feature of an address resolution processor. The Office Action asserted that Miller disclosed this feature. Applicant respectfully submits that the cited references taken individually or in combination, fail to disclose or suggest all of the features recited in any of the pending claims.

Claim 1, from which claims 2-5, 8, 11 and 12 depend, recites a network switch. The network switch includes a plurality of input ports that receive data packets. The network switch further includes an external address resolution interface connected to at least one of the plurality of input ports, the external address resolution interface externally transmitting the data packets for processing, and receiving the data packets after processing, wherein the external address resolution interface is coupled to an external address resolution switch. The network switch further includes a memory management unit connected to the external interface, and a plurality of output ports connected to the memory management unit.

Claim 6, from which claim 9 depends, recites a method of processing a data packet in a network switch. The method includes receiving a data packet in an input port. The method further includes transmitting said data packet from said input port over an interface to an external switch for address resolution. The method further includes processing said packet in said external switch. The method further includes transmitting said packet from said external switch to said interface. Still further, the method includes receiving said data packet in said interface from said external switch, and transmitting said data packet from said interface to a memory management unit. The method includes transmitting said data packet from said memory management unit to an output.

Claim 7, from which claim 10 depends, recites a network switch. The network switch includes an input port receiving means for receiving a data packet in an input port, and an input port transmitting means for transmitting the data packet from the input port over an interface to an external switch for address resolution. The network switch further includes a processing means for processing the packet in the external switch, and an external switch transmitting means for transmitting the packet from the external switch to the interface. The network switch further includes an interface receiving means for receiving the data packet in the interface from the external switch, an interface transmitting means for transmitting the data packet from the interface to a memory management unit, and a memory unit transmitting means for transmitting the data packet from the memory management unit to an output port.

In certain embodiments, the present invention allows for flexibility and modularity in implementing ARL functions on an as-needed basis. Applicants submit that the pending claims recite features that are neither disclosed nor suggested in the cited references.

Kung is directed to an automatic call manager traffic gate feature. Kung discloses a router 200 (which can be a gigabit switch, Figure 2). The router includes a DNS server 214, which can be combined with other servers such as a call manager server 218 and a trivial file transfer protocol server into a single server. See column 7 lines 1-7. The Office Action admits that Kung fails to disclose the feature of an external address resolution module but alleges that Miller discloses this feature.

Miller is directed to a frame throttle. Figure 1 of Miller illustrates a switch that includes several input/output application specific integrated circuits 12, 14, 16, and 18 (I/O ASICS) that are interconnected via an address resolution processor 20.

Applicants respectfully submit that the cited references fail to disclose or suggest all of the features recited in the pending claims. Specifically, the cited references fail to disclose or suggest at least the feature of a coupled external address resolution switch, as recited in claim 1 and similarly recited in claims 6 and 7 because Miller fails to cure the admitted deficiencies of Kung, and the cited combination is therefore an improper basis upon which to reject claim 1.

It is well known in the art that a DNS such as the DNS 214 illustrated in figure 2, performs high level address resolution such as translating domain names into IP addresses. “. . . the dynamic host control protocol server and domain name service server 214 may operate to dynamically assign IP address devices in the customer premise equipment.” (See column 7 lines 25-28 and 47-54 of Kung).

Further, it is also well-known in the art that an address resolution switch performs Address Resolution Logic (ARL) functions such as, for example determining the proper destination port for a data packet. “. . . in a switch having an address resolution processor for resolving multicast address information from a received data unit . . .” (see Miller at column 2 lines 9-15).

Thus, it is erroneous to conclude that the DNS described in Kung and the switch described in Miller perform the same functions, and that one skilled in the art would combine Miller with Kung “to use an available type of hardware for resolving addresses,” as alleged in the Office Action.

Further, based on the above discussion, Applicants respectfully submit that there is no suggestion or motivation to modify the references as proposed in the Office Action.

Furthermore, as discussed above, the mere fact that Kung discloses a DNS for address resolution and Miller discloses a switch with an address resolution processor, does not provide an adequate suggestion to modify Kung with Miller because the DNS of Kung and the switch in Miller are not interchangeable. Therefore, the proposed modification would render Kung unsatisfactory for its intended purpose.

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Applicants submit that because claims 2-4 and 11 depend from claims 1, 6 and 7 respectively, these claims are allowable at least for the same reasons as claims 1, 6 and 7. Further, Applicants submit that the cited references fails to disclose or suggest all of the features of these dependent claims.

Based at least on the above, Applicants submit that the cited references taken individually or in combination, fails to disclose or suggest all of the features recite in any of the pending claims. Accordingly, withdrawal of the rejection under 35 U.S.C. §103(a) of claims 1-4 and 6-7 and 11 is respectfully requested.

The Office Action rejected claim 5 under 35 U.S.C. §103(a) as being obvious over Kung and Miller and further in view of US Patent No. 6,768,742 to Godfrey (Godfrey). The Office Action took the position that Kung and Miller disclosed all of the features of claim 5, except the feature of an external resolution chip connected to the external interface. The Office Action asserts that Godfrey discloses this feature. Applicants submit that the cited references taken individually or in combination, fail to disclose or suggest all of the features of claim 5. Specifically, Kung and Miller are deficient at least for the reasons discussed above and Godfrey fails to cure these deficiencies.

Godfrey is directed to an on-chip local area network (LAN). Godfrey, at column 2 lines 16-18 discloses modules in the computer chip may operate as a DNS server. However, as clearly stated in Godfrey, the modules are internal (“each module in the computer chip . . .” column 2 lines 11-18). Thus, Applicants submit that Godfrey fails to cure neither the admitted deficiencies of Kung and Miller, nor the deficiencies discussed above regarding claim 1.

Based at least on the above, the cited references fail to disclose or suggest all of the features recited in claim 5. Accordingly, withdrawal of the rejection of claim 5 under 35 U.S.C. §103(a) is respectfully requested.

The Office Action rejected claims 8-10 under 35 U.S.C. 103(a) as being obvious over Kung and Miller, in further view of US Patent No. 6, 328,480 to Strike (Strike). The Office Action asserted that Kung and Miller disclosed all of the features of these claims with the exception of the feature of a means to detect a connection with an external address resolution switch. The Office Action asserted that Strike disclosed this feature. Applicants respectfully submit that the cited references, taken individually or in combination fail to disclose or suggest all of the features recited in the above claims. Specifically, Kung and Miller are deficient at least for the same reasons discussed above, and Strike fails to cure these deficiencies.

Strike is directed to Ethernet network devices, and particularly to such devices having an integrated circuit (chip) which performs the function of a physical connection sub layer and physical media dependent layer between a media independent interface and

a 'twisted-pair' connector. Strike discloses an interface system which facilitates the connection of the device to a fibre optic link. In terms of current standards, one object of the invention is to provide 100BASE-FX connectivity on 100BASE-TX Ethernet equipment in accordance with IEEE standard 802.3. Strike describes the detection of an external module. However, Strike fails to disclose or suggest at least the feature of an external address resolution switch and therefore, fails to cure the deficiencies of Kung and Miller.

Based at least on the above, the cited references taken individually or in combination fail to disclose or suggest all of the features recited in the above claims. Accordingly, withdrawal of the rejection of claims 8-10 under 35 U.S.C. 103(a) is respectfully requested.

The Office Action rejected claim 12 under 35 U.S.C. §103(a) as being obvious over Kung, in view of Miller, and further in view of US Patent No. 6,128,294 to Oura et al. (Oura). The Office Action took the position that Kung and Miller disclosed all of the features of claim 12 except the feature of an external address resolution switch including a buffering means. The Office Action asserts that Oura discloses this feature. Applicants submit that the cited references, taken individually or in combination, fail to disclose or suggest all of the features recited in claim 12. Specifically, Applicants submit that Kung and Miller are deficient at least for the reasons stated above regarding claim 1, and Oura fails to cure these deficiencies.

Oura is directed to a network connecting apparatus. The switch 20 checks the destination physical address of each received packet and that the switch may have a buffer (see column 2 lines 16-28 of Oura). However, Oura fails to disclose or suggest the feature of an external address resolution switch. Therefore, Oura fails to cure the deficiencies of Kung and Miller as discussed above.

Based at least on the above, Applicants submit that the cited references taken individually or in combination, fails to disclose or suggest all of the features of claim 12. Accordingly, withdrawal of the rejection of claim 12 under 35 U.S.C. §103(a) is respectfully requested.


Applicants submit that each of claims 1-12 recite features that are neither disclosed nor suggest in any of the cited references taken individually or in combination. Applicants request that each of the pending claims be allowed and this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.



In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

  
\_\_\_\_\_  
David E. Brown  
Registration No. 51,091

**Customer No. 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
14<sup>TH</sup> Floor  
8000 Towers Crescent Drive  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802

DEB:jkm